Layer-3 Network Routing with RPR Layer-2 Visibility

ABSTRACT OF THE DISCLOSURE

Routing tables of OSI layer-3 network elements are modified
in order to enable entry to a RPR subnet at different entry
points. This enables virtual tunnels or routing paths to util-
ize all existing entry links to the RPR subnet and to minimize
cost factors, such as the number of RPR spans required to trav-
erse the RPR subnet from the entry point to a destination RPR
node. The routing tables of RPR subnet elements are modified,
such that traffic leaving different elements but destined for
the same network location outside the RPR subnet may have indi-
vidualized RPR exit nodes. The respective RPR exit points for
the network elements are chosen to minimize cost factors, such
as the number of RPR spans required to reach the exit node from
each RPR node.